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Amendment dated October 1, 2007
Reply to Office Action of May 30, 2007

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REMARKS

The Applicants thank the Examiner for the thorough consideration given the present application. Claims 4 and 7 were previously cancelled without prejudice or disclaimer of the subject matter contained therein. Claims 1-3, 5-6, 8 and 9 are pending. Claims 1, 6, and 9 are independent. The Examiner is respectfully requested to reconsider the rejections in view of the amendments and remarks set forth herein.

Request for Reconsideration / Request for Withdrawal of Final Rejection

By way of this Reply, claims 1-3, 5, 6, 8, and 9 remain as previously presented. It is respectfully submitted that the Examiner's rejection of at least independent claim 9 under 35 U.S.C. § 102(b) based on Oshima et al. and the rejection of at least independent claims 1 and 6 under 35 U.S.C. § 103(a) based on Oshima et al. in view of Tanaka et al. are not proper and should be withdrawn.

In addition, in the Examiner's Office Action, the Examiner has presented a new ground of rejection of independent claims 1 and 6. The Examiner asserts that the new ground of rejection is "necessitated by amendment." However, claims 1 and 6 are exactly the same as previously presented claims 4 and 7, respectively, which claims have been cancelled. In view of this, the Examiner's new ground of rejection was not necessitated by amendment, but was presented because the Examiner's original rejection of claims 4 and 7 was improper. In view of this, the finality of the present Office Action is premature.

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Rejections Under 35 U.S.C. §102(b) and 35 U.S.C. §103(a)

Claim 9 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ohshima (U.S. Patent 6,226,416), and

Claims 1-3, 5, 6, and 9 stand rejected under 35 U.S.C. § 103(a) as being anticipated by Ohshima in view of Tanaka et al. (U.S. Patent 6,097,472).

This rejection is respectfully traversed.

Arguments Regarding Independent Claims 1, 6, and 9 as Previously Presented

Independent claims 1 and 9 as previously presented each recite a combination of steps directed to a method of measuring rotational and flight characteristics of a sphere, including *inter alia*

computing said rotational and flight characteristics of said sphere, according to said three-dimensional posture and position of said sphere specified for each of said two-dimensional images of said sphere at one time and said three-dimensional posture and position thereof at another time.

In addition, independent claim 6 as previously presented recites a combination of elements directed to an apparatus of measuring rotational and flight characteristics of a sphere, including *inter alia*

a computing means for generating an imaginary sphere, similar to said sphere, at coordinates in a three-dimensional space and specifying a three-dimensional posture of said sphere and a three-dimensional position thereof, based on said imaginary sphere and said two-

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dimensional images of said sphere to find said rotational and flight characteristics of said sphere.

Support for the novel combination of features set forth in each of independent claims 1, 6, and 9, can be found in the original specification, for example, see Experiment 2, The Flight characteristic was measured, on pages 52-54.

In contrast to the present invention, Oshima et al. merely discloses a method for measuring rotational quantity (but not a method for measuring flight characteristics, as presently claimed).

The method of Oshima et al. merely discloses photographing a plurality of stationary circular images at definite intervals (see Abstract, FIGS. 2, 3). The center points in each of two stationary circular images are placed one upon another (see FIG. 4). Then the two points in each of the stationary circular images are measured by a recording means (see FIG. 5).

However, nowhere in Oshima et al. is there any hint or suggestion of computing (finding) the flight characteristics, as required by each of claims 1, 6, and 9 of the present invention.

The Examiner cites secondary reference Tanaka et al. in the rejection of claims 1 and 6. However, Tanaka et al. merely disclose a kinoform being optimized on the basis of a genetic algorithm. Tanaka et al. do not disclose that the genetic algorithm is used for computing rotational characteristics and flight characteristics according to three dimensional posture and position for two dimensional posture and position. Therefore, Tanaka et al. cannot make up for the deficiencies of Oshima et al.

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At least for the reasons explained above, the Applicants respectfully submit that the combination of elements as set forth in each of independent claims 1, 6, 9 as previously presented are not disclosed or made obvious by the prior art of record, including Oshima et al. and Tanaka et al.

Therefore, independent claims 1, 6, and 9 are in condition for allowance.

Dependent Claims

All dependent claims are in condition for allowance due to their dependency from allowable independent claims, or due to the additional novel features set forth therein.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102(b) and § 103(a) are respectfully requested.

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CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.
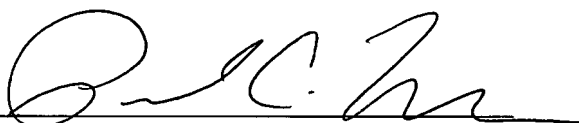
If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, he is invited to telephone Carl T. Thomsen (Reg. No. 50,786) at (703) 208-4030(direct line).

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly extension of time fees.

Dated: October 1, 2007   Respectfully submitted,

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